

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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POLICY

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## Peru

**Post:** Lima

### Quinoa Outlook

**Report Categories:**

Agricultural Situation

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**Report Highlights:**

Peru is forecast during 2015 to become the world's leading quinoa exporter with exports reaching 40,000 MT. Value-wise, the country's quinoa exports increased from \$15 million in 2010 to \$83 million in 2013, and are expected to reach \$180 million in 2015. The U.S. Food and Drug Administration (FDA) staffs in Chile and Costa Rica, in addition to FAS Lima, continue to provide information to Peruvian officials on how quinoa exported to the United States can continue to meet the regulatory requirements.

**Executive Summary:**

Quinoa production in CY 2015 is forecasted at 108,000 MT, increasing 17 percent compared to the previous year. In turn, Peruvian quinoa exports in 2014 are expected at 32,000 MT, of which over 55 percent will be exported to the United States. Peru is positioned to becoming the world's leading quinoa exporter in 2015, surpassing Bolivia, with forecasted exports reaching 40,000 MT. Quinoa exports have increased from \$15 million in 2010 to \$83 million in 2013 and are expected to reach \$180 million in 2015.

Seven shipments of Peruvian quinoa in 2014 did not meet U.S. regulatory requirements as set by the Environmental Protection Agency (EPA) and enforced by the Food and Drug Administration (FDA). Representatives from FDA were in Peru on December 16 and met with Peruvian Government Officials from the Ministry of Agricultural and the Ministry of Health and discussed how the Government of Peru can support the Peruvian quinoa industry in meeting U.S. regulatory requirements concerning agricultural chemicals.

**Production:**

Quinoa (*Chenopodium quinoa*) production in CY 2015 is forecasted at 108,000 MT, increasing 17 percent compared to the previous year. Due to growing demand from international markets, quinoa production has skyrocketed in recent years, increasing 124 percent between 2011 and 2014. The Food and Agriculture Organization (FAO) named 2013 as the "International Year of Quinoa" and appointed the Peruvian First Lady as FAO's Quinoa Ambassador to the World which helped raised international awareness about nutritive value of this high protein crop.

Quinoa in Peru is traditionally produced in the Southern highlands, particularly in the regions of Puno, Arequipa and Cusco, which account for 66 percent, 8 percent and 7 percent of total production respectively. However, producers have begun adapting it to lower altitudes and planting quinoa in the arid desert of the Peruvian coast.

	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Production (MT)</b>	31,824	29,852	39,397	41,093	41,182	44,207	63,130	92,253	108,000
<b>Harvested Area (Hectares)</b>	32,959	33,701	36,057	36,964	41,610	44,777	44,868	47,794	55,000
<b>Yields (MT/Ha)</b>	0.97	0.89	1.09	1.11	0.99	0.99	1.41	1.93	1.96

Rising international prices as result of stronger demand have encouraged producers on the lower lands to switch other crops to quinoa. The government is particularly interested in replacing rice production in the northern coast since quinoa demands only 30 percent of the water rice requires. New quinoa growers in the Southern coast of Peru have successfully adapted this Andean crop to the coastal

environment. Improved cultural practices and better pest control have resulted in extraordinary yield increases. Quinoa yields in the highlands average about 1 MT per hectare with peaks of 1.2 MT per hectare, while on the lower lands of Arequipa yields average about 5 MT per hectare with peaks of 8 MT per hectare.



Picture 1: Quinoa fields adapted to the desert

Adapting quinoa to lower lands is not exempt from new challenges. Higher humidity and warmer temperatures have resulted in new pests that were not an issue in the Highlands such as *Nysiux sp*, *Nezara viridula* and mildew. The first is particularly important since it attacks the plant when the grain is maturing. Apparently, the pesticide treatment can only be applied at that time.

Around 90 percent of quinoa produced in Peru is conventional and only 10 percent is certified organic, mostly grown in the Highlands. Conventional quinoa prices at farm gate range between \$4,000 and \$4,500 per MT, while organic quinoa is \$5,200 per MT. The cost of production for conventional quinoa is \$2,200 per MT.

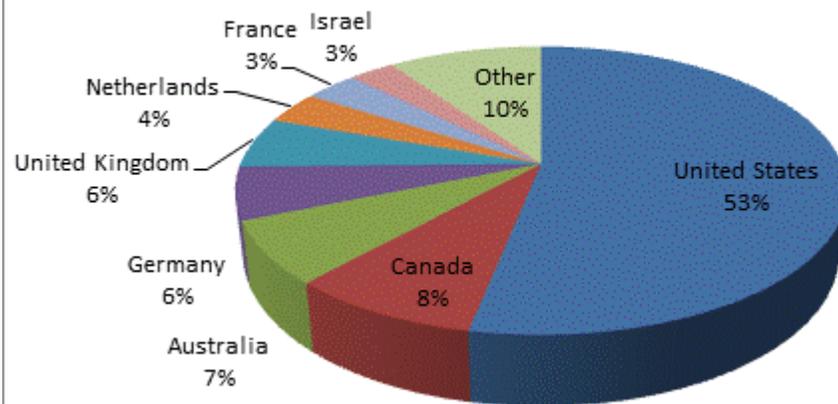
### **Consumption:**

Quinoa consumption in Peru in 2014 is expected at 36,000 MT. Quinoa was traditionally produced for the local market. Over 80 percent of Peruvian population consumes quinoa regularly, usually in stews, soups, drinks and desserts. Per capita quinoa consumption in 2014 is estimated at 1.2 kilograms. It remains to be seen how is international demand, with the consequent higher prices, will affect local consumption. So far, higher demand has resulted in more area planted, higher yields and more quinoa for all markets.

### **Trade:**

Peruvian quinoa exports in 2014 are expected at 32,000 MT, of which over 55 percent will be exported to the United States. Peru is bound to becoming the world's leading quinoa exporter in 2015, surpassing Bolivia for the first time, with forecasted exports of 40,000 MT. Quinoa exports have increased from \$15 million in 2010 to \$83 million in 2013 and are expected to reach \$180 million in 2015.

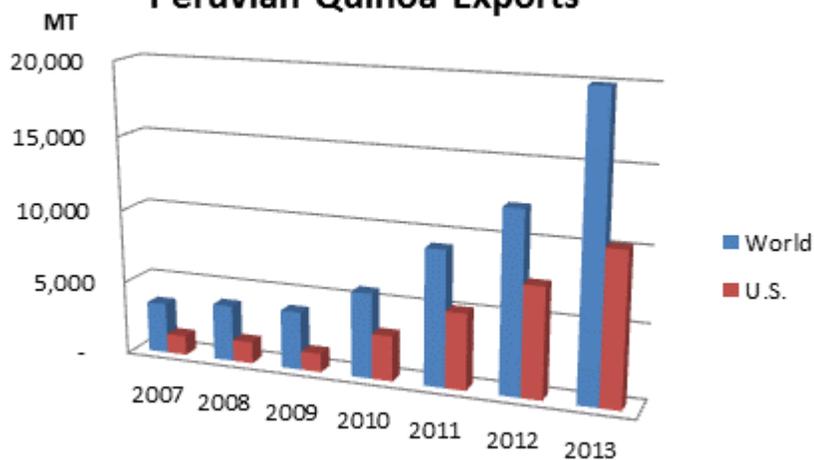
## Peruvian Quinoa Exports 2013



Peruvian quinoa exporters to the United States experienced seven shipment rejections by FDA during 2014 upon arrival at U.S. ports due to the detection of unapproved agricultural chemicals such as pesticides. This information is available on the FDA website, where import alerts on food and food product shipments from all global suppliers are listed. The issue of meeting all U.S. regulatory requirements has brought some trade uncertainty, causing the Peruvian industry to hold larger stocks of quinoa.

Peruvian officials communicated with the FDA their concerns about the FDA rejections of quinoa due to agricultural chemical residues. There are 29 products approved by the EPA for quinoa, while the FDA is charged with testing quinoa at the ports. Representatives from FDA were in Peru on December 16 and met with Peruvian officials from the Ministry of Agricultural and the Ministry of Health and discussed how the Government of Peru can support the Peruvian quinoa industry in meeting U.S. regulatory requirements concerning agricultural chemicals.

## Peruvian Quinoa Exports



**Policy:**

The Peruvian government through the Ministry of Agriculture and the Agricultural Bank (Agrobanco) is encouraging quinoa production in the northern coast of Peru, aiming at replacing rice production. The Ministry of Agriculture promotes production reconversion through technical assistance, irrigation equipment, and market orientation. Agrobanco offers credits to for planting and purchasing equipment. This program aims at reconverting at least 50,000 hectares of rice into quinoa, reducing water consumption from 20 to 6 cubic meters per hectare, and avoiding salinization of fields – flood irrigation of rice leaves 30 MT of salt in the field.